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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,159	09/22/2003	Norifumi Furuta	117152	6337
25944	7590	07/28/2006	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			PARRIES, DRUM	
			ART UNIT	PAPER NUMBER
			2836	

DATE MAILED: 07/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/665,159	<b>Applicant(s)</b> FURUTA ET AL.	
	<b>Examiner</b> Dru M. Parries	<b>Art Unit</b> 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed May 8, 2006 have been fully considered but they are not persuasive. Regarding the Applicant's assertion that Clark doesn't teach a changing means/unit, the Examiner acknowledges the means-plus-function format of the claim and that Clark doesn't disclose the same structure as that described in the Applicant's specification, however Clark does teach an equivalent thereof. Clark teaches an attaching means that changes the state of the electrical connection between the high voltage equipment and the external equipment to a disconnected state in response to detachment of said attaching means. It is inherent that when the connectors are disconnected, the state of electrical connection is also disconnected. Therefore, Clark's attaching means performs the same function as the changing means/unit, as claimed. (See MPEP 2183)

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

3. Applicant's arguments filed May 8, 2006 have been fully considered but they are not persuasive. Regarding the Applicant's assertion that Clark doesn't disclose changing the state of the connector when the attaching unit is detached, Clark's cam lever (attaching means) "controls connection and disconnection of the power connector." (Col. 4, lines 51-55)

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 9 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 9 and 21 contradict what is claimed in claims 1 and 13, which claims 9 and 21 are dependent upon. The Examiner will interpret the claims to mean that the connection means are within reaching distance of a person's hand, but aren't touchable because the attaching means blocks the connection means via a guard or barrier.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 1, 5, 9, 10, 12, 13, 17, 21, 22, 24, 25, and 27 rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al. (5,913,691) and Brown et al. (5,494,459). Clark teaches high-voltage equipment housing comprising connection means (male and female connectors; the female connector being attached to the housing) for making an electrical connection to external equipment. He also teaches an attaching means (cam lever and locking means) to prevent the mechanical connection from being released by said connection means (Col. 2, lines 26-29). It is inherent that when the attaching means are detached that the electrical connection is changed to a disconnected state (Col. 4, lines 50-55; Col. 5, lines 8-10). He also teaches the high voltage housing in a vehicle, therefore it would be inherent that there is holding means for mounting the equipment on a vehicle (Fig. 27). It is also inherent that the connection means are positioned to be touchable by a hand of a person since the cam lever and locking means need to be moved into

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place to secure the connections. Clark fails to teach the attaching means for preventing the connection means from being touched. Brown teaches insulation means surrounding both the male and female connectors to prevent manual touching of the connection means (Abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate insulation means around the male and female connectors of Clark to prevent them from being touched, so that no possible electrocution could occur during connection of the connectors.

8. Claims 2, 6, 11, 14, 18, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al. (5,913,691) and Brown et al. (5,494,459) as applied to claims 1, 10, 13, and 22 above, and further in view of Heberlein et al. (6,361,356). Clark and Brown teach a high voltage housing as described above. Clark fails to teach an interlock circuit attached to said attaching means. Heberlein teaches an electrical connector used in automobiles. He teaches the connector comprising an interlock circuit (56) attached to attaching means (arm lever, 16) and when the state of the electrical connection changes to disconnected state is when the interlock circuit opens in response to detachment of said attaching means (Col. 4, lines 7-26). It would have been obvious to one of ordinary skill in the art at the time of the invention to add an interlock circuit into Clark's invention so that it can visually notify operators that a connection has been securely made between two devices.

9. Claims 3, 4, 7, 8, 15, 16, 19, 20, 26, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al. (5,913,691), Brown et al. (5,494,459), and Heberlein et al. (6,361,356) as applied to claims 1, 2, 13, and 14 above, and further in view of Saitoh et al. (5,274,722). Clark, Brown, and Heberlein teach a high-voltage housing with connectors as

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described above. Clark also teaches an upper lid on the high voltage distribution box. These references fail to teach a prevention means for the upper lid of the housing. Saitoh teaches a housing structure with an upper lid (9) having prevention means (hooks, 11) connected to the housing for preventing the upper lid from being detached once the connector has been connected (Fig. 6). It would have been obvious to one of ordinary skill in the art at the time of the invention to implement this preventing means for a housing into Clark's invention so that it makes the housing safer for users so that the inner equipment can't be touched unless the connectors are disconnected, which eliminates the possibility of electrocution.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dru M. Parries whose telephone number is (571) 272-8542. The

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examiner can normally be reached on M-Th from 8:00am to 5:00pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus, can be reached on 571-272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DMP

7-21-2006



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